

AMENDMENTS TO THE DRAWINGS

The attached sheets of drawings includes changes to Figure 2 and the deletion of Figures 4 and 5. The attached two sheets of drawings includes Figures 1 through 3 and replaces the originally filed drawings.

Attachment: Replacement Sheets

REMARKS

Claim 18 is pending in the application. The specification and drawings have been amended to correct several informalities that were noted by the Office. Applicant submits that basis for the amendments can be found throughout the application, drawings and claims as originally filed and as such, no new matter has been presented. The Examiner is respectfully requested to reconsider and withdraw the objections and rejections in view of the amendments and remarks contained herein.

DRAWINGS

The drawings stand objected to for certain informalities. Applicant has attached two sheets of replacement drawings with Figures 1 through 3, which are to replace the originally filed drawings and cancel Figures 4 and 5. In view of the above remarks and the amendments to the specification, Applicant submits that all informalities in the drawings noted by the Office have been resolved. Accordingly, Applicant respectfully requests that the objection to the drawings be withdrawn.

SPECIFICATION

The specification stands objected to for certain informalities. Applicant has amended paragraphs [0012], [0014], [0015], and [0017] in the manner suggested by the Examiner. Additionally, Applicant has amended paragraphs [0008] through [0011] and [0018] to eliminate references to Figures 4 and 5. Accordingly, Applicant respectfully requests that the objection to the specification be withdrawn.

CLAIM REJECTIONS UNDER 35 U.S.C. §112

Claim 18 has been rejected under 35 U.S.C. §112, first paragraph as failing to comply with the written description requirement. More specifically, the Examiner has noted in paragraphs 6(a) through 6(d) on page 4 of the above-referenced Office Action several instances in which it is believed that the Applicant has claimed subject matter which was not described in the specification in a way as to reasonably convey to one skilled in the art that the inventor, at the time the application was filed, had possession of the claimed invention. This rejection is respectfully traversed.

Initially, Applicant notes that the first paragraph of 35 U.S.C. §112 requires only that the invention be described in such a manner as to “enable any person skilled in the art to which it pertains ... to make and use” the invention. Applicant respectfully submits that the Examiner has not evaluated the specification from the vantage point of “any person skilled in the art” but rather has apparently searched the specification for various phrases and terms. As such, Applicant submits that the Examiner has not established a *prima facie* case of non-enablement.

Concerning paragraph 6(a) and the phrase “the first and second shafts are slidably...connected”, Applicant notes that the specification provides that the externally splined shaft includes a male splined end 26 that matingly engages a mating female splined end 28 of the output shaft. Applicant submits, and the Examiner has not stated, that any person skilled in the art would understand that the male splined end 26 and the female splined end 28 are slidably connected. Moreover, Applicant submits that any person skilled in the art would not understand how a mechanical joint could be formed with splined components if the splined components were not slid together.

Concerning paragraph 6(b) and the phrase “a housing into which one of the...shafts is rotatably supported”, Applicant notes that paragraph [0012] of the specification describes the output shaft in association with a transfer case 22 and that in paragraph [0017] the specification describes the transfer case 22 as including a housing 22a. Applicant further notes that the specification describes the externally splined shaft as being associated with a propeller shaft. Accordingly, Applicant submits that any person skilled in the art would understand that one of the shafts is rotatably supported in a housing.

Concerning paragraph 6(c) and the phrase “a second portion that is coupled to a distal end of the first portion”, Applicant notes that the word “distal” is commonly understood to mean “situated away from the point of attachment” so that the term “distal end” would be understood to mean the end (of an object or element) that is situated away from the point of attachment. By way of example, the distal end of one’s hand would be the tips of the fingers on that hand, since the wrist is the point of attachment to one’s arm. Bearing in mind that the claim recites that the annular lip has “a first portion that extends generally radially outwardly of the flange seal and a second portion that is coupled to a distal end of the first portion”, Applicant submits that the term “distal end” is used to describe the location on the first portion of the annular lip at which the second portion of the annular lip is connected thereto. Accordingly, Applicant submits that any person skilled in the art would understand from the claim language where the second portion is connected to the first portion of the annular lip.

Concerning paragraph 6(d) and the phrase “a second portion...which extends circumferentially about the first shaft”, Applicant notes that paragraph [0016] of the

specification describes the annular lip as including a first portion 60, which extends in a radial direction, and a second portion 62, which is generally transverse to the first portion and disposed concentrically about the longitudinal axis 64. Given these constraints, Applicant submits that any person skilled in the art would understand that the second portion 62 extends circumferentially about the output shaft 24. Moreover, the Examiner has not provided any alternative non-circumferentially extending configuration which satisfies the description in the specification.

In view of the above remarks, Applicant submits that the Examiner has not provided a *prima facie* case of non-enablement and respectfully requests that the Examiner reconsider and withdraw the rejection of Claim 18 under 35 U.S.C. §112, first paragraph.

CLAIM REJECTIONS UNDER 35 U.S.C. §112

The Examiner has rejected Claim 18 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,319,132 to Krisher. This rejection is respectfully traversed.

Applicant notes that Claim 18 recites that “sealing engagement between the flange seal and the first shaft is obtained solely by constriction of the flange seal about first shaft”. Significantly, the language of the claim requires that the flange seal constrict (i.e., make narrow or draw together) against the first shaft.

In contrast, the device illustrated and described in the ‘132 patent to Krisher employs a pair of clamps to secure the opposite ends of the boot to a housing and a shaft. Such clamps are understood to generate a clamping force that is employed to

urge the boot clamp into sealing engagement with the shaft and housing. Accordingly, the clamps in the Krisher reference constrict to cause the boot to sealingly engage the housing, rather than the boot itself constrict and sealingly engage the housing.

It is well settled that “the burden of establishing a *prima facie* case of anticipation resides with the Patent and Trademark Office.” *In re Skinner*, 2 USPQ 2d 1788, 1788-89 (B.P.A.I. 1986). If the examination at the initial stage does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of the patent. *In re Oetiker*, 977 F.2d 1443, 24 USPQ 2d 1443 (Fed. Cir. 1992).

In *W.L. Gore & Associates v. Garlock, Inc.*, the Federal Circuit stated that “anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration.” 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). It is not enough, however, that the reference disclose all the claimed elements in isolation. Rather, as stated by the Federal Circuit, the prior art reference must disclose each element of the claimed invention “*arranged as in the claim*”. *Lindermann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984).

Anticipation, however, may reside even if the prior art reference relied on does not expressly disclose a minor aspect of the claimed invention. Under the principles of inherency, if a structure in the prior art necessarily functions in accordance with the limitations of a process or method claim of an application, the claim is anticipated. *In re King*, 801 F.2d 1324, 231 USPQ 136, 138 (Fed. Cir. 1986). The Federal Circuit has stated:

To serve as an anticipation when the reference is silent about the asserted inherent characteristic, such gap in the reference may be filled with recourse to extrinsic evidence. Such evidence must make clear that the missing descriptive matter is necessarily present

in the thing described in the reference and that it would be so recognized by persons of ordinary skill. *Continental Can Co. USA v. Monsanto Co.*, 948 F.2d 1264, 20 USPQ 2d 1746, 1749 (Fed. Cir. 1991).

In this regard, the CCPA has added that “[i]nherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient.” *In re Oelrich*, 666 F.2d 578, 581, 212 USPQ 323, 326 (C.C.P.A. 1981) (quoting *Hansgirk v. Kemmer*, 102 F.2d 212, 214, 40 USPQ 665, 667 (C.C.P.A. 1939) (emphasis in original)).

In view of the above, Applicant respectfully submits that the Examiner has not presented a prima facie case of anticipation. In this regard, it appears that the Examiner concludes that as the boot 32 of the Krisher reference is formed of a resilient material, it must form a seal against the chain sprocket spindle 16. Applicant notes that frictional engagement does not necessarily equate to sealing engagement as the latter is highly dependent upon the load (force) that is applied to a seal, the surface finishes of the components that are being sealed, etc. Moreover, given the cost of the clamp and its installation to the boot 32, it seems much more likely that the clamps are absolutely required to achieve a seal between the boot 32 and the chain sprocket spindle 16 of the Krisher reference. As noted above, “[i]nherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient.” *In re Oelrich*, 666 F.2d 578, 581, 212 USPQ 323, 326 (C.C.P.A. 1981) (quoting *Hansgirk v. Kemmer*, 102 F.2d 212, 214, 40 USPQ 665, 667 (C.C.P.A. 1939) (emphasis in original)). Consequently, the Examiner cannot rely on inherency to support the rejection since he cannot show that the “missing descriptive matter is necessarily present in the thing described in the reference and that it would be so recognized by persons of ordinary skill” in the art.

In view of the above remarks, Applicant submits that the Krisher reference does not teach or suggest a boot seal with a flange seal that seals against a shaft solely through constriction of the flange seal. Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of Claim 18 under 35 U.S.C. §102(b).

RESPONSE TO EXAMINER'S REMARKS

The Examiner has stated that "even if the claim did limit the invention in the way applicant argues, the claim would still be unpatentable because a clampless connection between a boot and a shaft is an art recognized equivalent of a connection which uses a clamp (see Krude et al., US 4,456,269, Figs. 2 & 3). As such, modifying Kirsher to use a clampless connection would have been obvious to one of ordinary skill in the art at the time of the invention."

Applicant submits that the art does not recognize clampless connections to be interchangeable or equivalent with clamp connections; moreover, Applicant submits that if clampless connections were recognized in the art as being interchangeable or equivalent with clamp connections, clamp connections would simply not be used due to the additional cost of the materials and installation labor. Accordingly, Applicant assumes that the Examiner's statements are based on facts within his personal knowledge. As the Examiner knows, his ability to use personal knowledge is qualified by 37 C.F.R. 1.107 which states:

When a rejection in an application is based on facts within the personal knowledge of an employee of the Office, the data shall be as specific as possible, and the reference must be supported, when called for by the Applicant, by the affidavit of such employee, and such affidavit shall be subject to contradiction or explanation by the affidavits of the applicant and other persons.

If Claim 18 is rejected under 35 U.S.C. §103(a) on the basis of Kirsher in view of Krude et al., Applicant hereby respectfully requests that the Examiner provide an affidavit setting forth the facts and evidence that establish that the art recognizes the equivalence of clampless connections with clamp connections so that Applicant may have a full and fair opportunity to rebut these statements.

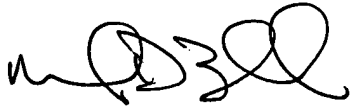
It is Applicant's position that clampless connection and clamp connections are not viewed by the art as being equivalent, that there is no suggestion for the combination of references cited by the Examiner and that even if the references were to be combined, they would not produce the claimed invention. Regarding the latter point, Applicant notes that the flange seal is received into the groove that is formed on the shaft and that the lips (12A, 12B, 12C) of the Krude et al. reference are configured to seal against a straight cylindrical shaft (not in a groove) so that they may axially translate as the angle of the shaft changes. Such configuration is not desirable as it would permit the annular lip to translate with the second shaft rather than to remain fixed to the first shaft.

CONCLUSION

It is believed that all of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding objections and rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully

requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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